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BIRCH, STEWART, KOLASCH & BIRCH, LLP
P.O.Box 747
Falls Church, VA 22040-0747

EXAMINER
AGGARWAL, YOGESH K

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/678,328
Filing Date: October 03, 2000
Appellant(s): TAKANE, YASUO

Marc S. Weiner
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 07/23/2007 appealing from the Office action mailed 01/26/2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows: Claims 1, 10 and 13-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sasaki et al. (USP 5,034,864) (hereinafter, "Sasaki") in view of Takagi (USP 5,319,416) (hereinafter, "Takagi").

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,034,864	Sasaki et al.	7-1991
5,319,416	Takagi	6-1994

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 10, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al. (US Patent # 5,034,804) in view of Takagi (US Patent # 5,319,416).

[Claim 1]

Sasaki et al. teaches a digital camera (figure 6a and 6b) comprising a photometry device (19) for performing photometry to output photometry values (col. 4 lines 26-34, col. 6 lines 19-44);

an imaging device (26) for imaging a subject, to output image data representing an image of the subject (col. 4 lines 14-25).

an exposure control device for controlling an amount of exposure in said imaging device on the basis of the photometry values outputted by said photometry device (col. 4 lines 26-34 teach that upon half press of the shutter, the diaphragm 22 is controlled by the control circuit 24 according to the measured amount of the incident light by the exposure sensor 19 and col. 4 lines

38-57 teach when the shutter is fully pressed an image is captured. It would be obvious that the image is taken according to the value of the diaphragm set during the half press of the shutter) ;

an image file create device for creating an image file for each of imaging by said imaging device, containing the image data outputted from said imaging device and data representing the photometry values, the image file create device creating the image file; and a recording control device for recording the image file created by said image file create device on a recording medium (e.g. figures 9e and 10, col. 8 lines 42-55, col. 9 lines 1-35 teach a file being created on a memory card 15 representing image data and exposure values).[The exposure value and the image data shown in block number 11H in figure 9E in the same recording device and portion is being read as an image file. A file is defined as a collection of data stored and dealt with as a single, named unit. Sasaki teaches block 11H showing exposure values and image data stored within a single unit].

Sasaki teaches an exposure sensor 19 to measure the amount of incident light but fails to teach if this photometry device is used for performing photometry for each of the sections obtained by dividing an imaging area into a plurality of sections to output photometry values including the identification numbers that specify each of the sections.

However Takagi teaches an imaging device (figure 2) having a divisional photometry section (figure 3) that performs photometry by divisional photometer element 11a to 11h arranged in correspondence with the divisional photometric areas, F1 to F8, of a photographic frame. The divisional photometer elements 11a to 11h perform photometry on photometric areas F1 to F8 respectively. The reference numeral 12 converts photometric signals form the

photometric elements 11a to 11h into photometry values E(n) (n=1 to 8, in the units of BV) and stores these photometric values E(1) to E(8) into the AE output memory 20 (col. 3 lines 32-49).

Therefore taking the combined teachings of Sasaki and Takagi, it would be obvious to one skilled in the art at the time of the invention to have been motivated to have used a photometry device for performing photometry for each of the sections obtained by dividing an imaging area into a plurality of sections to output photometry values including the identification numbers that specify each of the sections in order to provide an exposure calculation device for cameras that is capable of calculating a correct exposure for a principled object in a back-lighted or front-lighted condition as taught in Takagi (col. 1 lines 41-45).

[Claim 13]

Sasaki teaches that the amount of incident light is measured by exposure sensor 19, and control circuit 24 controls diaphragm 22 according to the measured amount of incident light (col. 4 lines 31-34). It is very well known in the art that the diaphragm is used to control exposure and therefore reads on wherein the output values of the photometry device are directly used to determine an amount of exposure.

information

[Claims 10 and 14]

These are method claims corresponding to apparatus claims 1 and 13 and are therefore analyzed and rejected based upon apparatus claims 10 and 13 respectively.

(10) Response to Argument

1. Appellant argues (page 7) with regards to claim 1 that there is no teaching or suggestion in Takagi that is directed to storing data representing the photometry values for each of the sections from said photometry device. The Examiner disagrees.

In response to appellant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, Sasaki reference has been used to teach this feature in combination with Takagi and not Takagi alone.

The recording of photometry values, which are also known as exposure values, is taught in Sasaki reference. Sasaki teaches in figures 9e and 10, col. 8 lines 42-55, col. 9 lines 1-35 storing on a memory card 15 image data and exposure values output from the exposure sensor 19. The exposure value and the image data shown in block number 11H in figure 9E is being read as an image file. A file is defined as a collection of data stored and dealt with as a single, named unit. Sasaki teaches block 11H showing exposure values and image data stored within a single unit. Therefore Sasaki teaches storing data representing the photometry values (exposure values) from a photometry device (exposure sensor 19) along with an image data outputted by an imaging device in a file.

Takagi has been used to show that instead of storing exposure values for the whole of the image (as in Sasaki), the exposure values (which are the same as the photometry values) for each of the sections of the image (See figures 2 and step S4 in figure 4 of Takagi) are stored in memory 20 (col. 3 lines 32-49). This is done in order to calculate a correct exposure value for

cameras that is capable of calculating a correct exposure for a principled object in a back-lighted or front-lighted condition as taught in Takagi thereby enhancing the quality of the reproduced image (col. 1 lines 41-45, Also see Abstract).

2. Appellant argues (Page 7) with regards to claim 1 that there is no teaching or suggestion that exposure values are stored once a correct exposure value is corrected. The claim does not require calculating a correct exposure value first and then storing these exposure values. Therefore this argument is moot.

3. Appellant argues (Pages 7 and 8) that Takagi fails to teach or suggest recording in the image file data the image data outputted from said imaging device and data representing the photometry values for each of the sections outputted from said photometry device including the identification numbers, which specify each of the sections. The Examiner disagrees.

In response to appellant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, Sasaki reference has been used to teach this feature in combination with Takagi and not Takagi alone.

Sasaki teaches in figures 9e and 10, col. 8 lines 42-55, col. 9 lines 1-35 storing on a memory card 15 image data and exposure values output from the exposure sensor 19. The exposure value and the image data shown in block number 11H in figure 9E is being read as an image file. A file is defined as a collection of data stored and dealt with as a single, named unit. Sasaki teaches block 11H showing exposure values and image data stored within a single unit. Therefore Sasaki teaches storing data representing the photometry values (exposure values) from

a photometry device (exposure sensor 19) along with an image data outputted by an imaging device in a file.

Takagi has been used to teach that instead of storing exposure values for the whole of the image (as in Sasaki), the exposure values (which are the same as the photometry values) for each of the sections of the image (See figures 2 and step S4 in figure 4 of Takagi) are stored in memory 20. Specifically Takagi teaches an imaging device (figure 2) having a divisional photometry section (figure 3) that performs photometry by divisional photometer element 11 a to 11 h arranged in correspondence with the divisional photometric areas, F1 to F8, of a photographic frame. The divisional photometer elements 11a to 11 h perform photometry on photometric areas F1 to F8 respectively. The reference numeral 12 converts photometric signals form the photometric elements 11a to 11h into photometry values E(n) (n=l to 8, in the units of BV) and stores these photometric values E(1) to E(8) into the AE output memory 20 (col. 3 lines 32-49). This is done in order to calculate a correct exposure value for cameras that is capable of calculating a correct exposure for a principled object in a back-lighted or front-lighted condition as taught in Takagi thereby enhancing the quality of the reproduced image (col. 1 lines 41-45, Also see Abstract).

4. Appellant argues (Page 8) with regards to Sasaki that it merely discloses storing the exposure value (or aperture value). As Takagi merely discloses outputting an exposure value, the combination of the teachings of Takagi with the teachings of Sasaki would merely teach storing the correct exposure value, not each of the photometry values as claimed. The Examiner disagrees.

Both Sasaki and Takagi teach storing exposure values e.g. Sasaki teaches in figures 9e and 10, col. 8 lines 42-55, col. 9 lines 1-35 storing on a memory card 15 image data and exposure values output from the exposure sensor 19 and Takagi teaches an imaging device (figure 2) having a divisional photometry section (figure 3) that performs photometry by divisional photometer element 11 a to 11 h arranged in correspondence with the divisional photometric areas, F1 to F8, of a photographic frame. The reference numeral 12 converts photometric signals form the photometric elements 1la to 1lh into photometry values E(n) (n=l to 8, in the units of BV) and stores these photometric values E(1) to E(8) into the AE output memory 20 (col. 3 lines 32-49). Therefore Sasaki teaches storing photometric (exposure) values along with image data and Takagi teaches storing photometric values (exposure values) for each of the sections E(1) to E(8) into the AE output memory 20.

5. Appellant argues (Page 8) with regards to claim 1 that the combination of the teachings of the cited references fail to teach or suggest "an image file create device for creating an image file for each imaging by the imaging device, the image file create device recording in the image file the image data outputted from said imaging device and data representing the photometry values for each of the sections outputted from said photometry device including the identification numbers for which specify each of the sections," as required by claim 1. The Examiner disagrees.

Sasaki teaches in figures 9e and 10, col. 8 lines 42-55, col. 9 lines 1-35 storing on a memory card 15 image data and exposure values output from the exposure sensor 19. The exposure value and the image data shown in block number 11H in figure 9E is being read as an image file. A file is defined as a collection of data stored and dealt with as a single, named unit.

Sasaki teaches block 11H showing exposure values and image data stored within a single unit. Therefore Sasaki teaches storing data representing the photometry values (exposure values) from a photometry device (exposure sensor 19) along with an image data outputted by an imaging device in a file.

Takagi has been used to show that instead of storing exposure values for the whole of the image (as in Sasaki), the exposure values (which are the same as the photometry values) for each of the sections of the image (See figures 2 and step S4 in figure 4 of Takagi) are stored in memory 20 (col. 3 lines 32-49). This is done in order to calculate a correct exposure value for cameras that is capable of calculating a correct exposure for a principled object in a back-lighted or front-lighted condition as taught in Takagi thereby enhancing the quality of the reproduced image (col. 1 lines 41-45, Also see Abstract).

Therefore the combination of Sasaki and Takagi does teach "an image file create device for creating an image file for each imaging by the imaging device, the image file create device recording in the image file the image data outputted from said imaging device and data representing the photometry values (Sasaki) for each of the sections outputted from said photometry device including the identification numbers for which specify each of the sections (Takagi)".

6. Appellant argues (Page 9) with regards to claim 1 that the cited references are not properly combinable as the suggested combination would require substantial reconstruction. The Examiner disagrees. The concept of divisional photometry is very well known to one skilled in the art in the field of cameras. Sasaki reference teaches measuring exposure values (same as photometry values) and recording along with image data and Takagi reference teaches dividing

the photometric frame and then measuring exposure values. This is called divisional photometry and is done in order to calculate a correct exposure for a principled object in a back-lighted or front-lighted condition thereby enhancing the quality of the reproduced image. Furthermore, Appellant provides no basis for the assertion that including a photometry circuit in Sasaki would prevent Sasaki form having a simpler device. Therefore the argument that having a substantial reconstruction of Sasaki's circuit would lead to a higher cost in not borne by facts. The fact that a combination would not be made by businessmen for economic reasons does not mean that person of ordinary skill in the art would not make the combination because of some technological incompatibility (MPEP 2145 VII). See In re Farrenkopf, 713 F.2d 714,219 USPQ 1 (Fed. Cir. 1983). The benefits of divisional photometry are well known and have been set forth in the rejection.

7. Appellant argues (Page 10) with regards to claim 1 that Examiner relies on improper hindsight reasoning in support of the rejection of claim 1. The Examiner strongly disagrees with the appellant. In response to appellant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the appellant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In this case, Takagi clearly teaches after divisional photometry is performed on a photographic frame, a correct exposure for a principled object in a back-lighted

or front-lighted condition thereby enhancing the quality of the reproduced image (col. 1 lines 41-45, Also see Abstract).

8. Appellant argues (on Page 10) regarding claim 10 (a method claim for apparatus claim 1) that rejection fails to establish *prima facie* obviousness of independent claim 10. Sasaki is used to teach storing exposure values from a photometry device along with image data in a memory and Takagi is used to teach storing divisional photometric values along with identification numbers in a memory. The motivation is explicitly recited in Takagi as to provide an exposure calculation device for cameras that is capable of calculating a correct exposure for a principled object in a back-lighted or front-lighted condition as taught in Takagi (col. 1 lines 41-45). Therefore a prima facie case is met by fulfilling all the conditions:

1). The motivation is explicitly taught in prior art (Takagi).

2) With both Sasaki and Takagi trying to correct exposure based on photometry values, there is a reasonable expectation of success in combining the theories of Sasaki and Takagi.

3) Sasaki and Takagi teach all the claimed limitations.

9. Appellant argues (Page 11) with regards to claim 10 (a method claim for apparatus claim 1) that cited references fail to teach the image create device "an image file create device for creating an image file for each imaging by the imaging device, the image file create device recording in the image file the image data outputted from said imaging device and data representing the photometry values for each of the sections outputted from said photometry device including the identification numbers for which specify each of the sections," as required by claim 10. The Examiner disagrees. Sasaki clearly teaches in figures 9e and 10, col. 8 lines 42-55, col. 9 lines 1-35 storing on a memory card 15 image data and exposure values output from

the exposure sensor 19. The exposure value and the image data shown in block number 11H in figure 9E is being read as an image file. A file is defined as a collection of data stored and dealt with as a single, named unit. Sasaki teaches block 11H showing exposure values and image data stored within a single unit. Therefore Sasaki teaches storing data representing the photometry values (exposure values) from a photometry device (exposure sensor 19) along with an image data outputted by an imaging device in a file.

Takagi has been used to show that instead of storing exposure values for the whole of the image (as in Sasaki), the exposure values (which are the same as the photometry values) for each of the sections of the image (See figures 2 and step S4 in figure 4 of Takagi) are stored in memory 20 (col. 3 lines 32-49). This is done in order to calculate a correct exposure value for cameras that is capable of calculating a correct exposure for a principled object in a back-lighted or front-lighted condition as taught in Takagi thereby enhancing the quality of the reproduced image (col. 1 lines 41-45, Also see Abstract).

10. Appellant argues (Page 10) with regards to claim 10 that Examiner relies on improper hindsight reasoning in support of the rejection of claim 10. The Examiner strongly disagrees with the appellant. In response to appellant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the appellant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In this case, Takagi clearly teaches after divisional photometry is

performed on a photographic frame, a correct exposure for a principled object in a back-lighted or front-lighted condition thereby enhancing the quality of the reproduced image (col. 1 lines 41-45, Also see Abstract).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Yogesh Aggarwal

Conferees:

Ngoc-Yen Vu

Lin Ye

LIN YE
SUPERVISORY PATENT EXAMINER

NGOC-YEN VU
SUPERVISORY PATENT EXAMINER